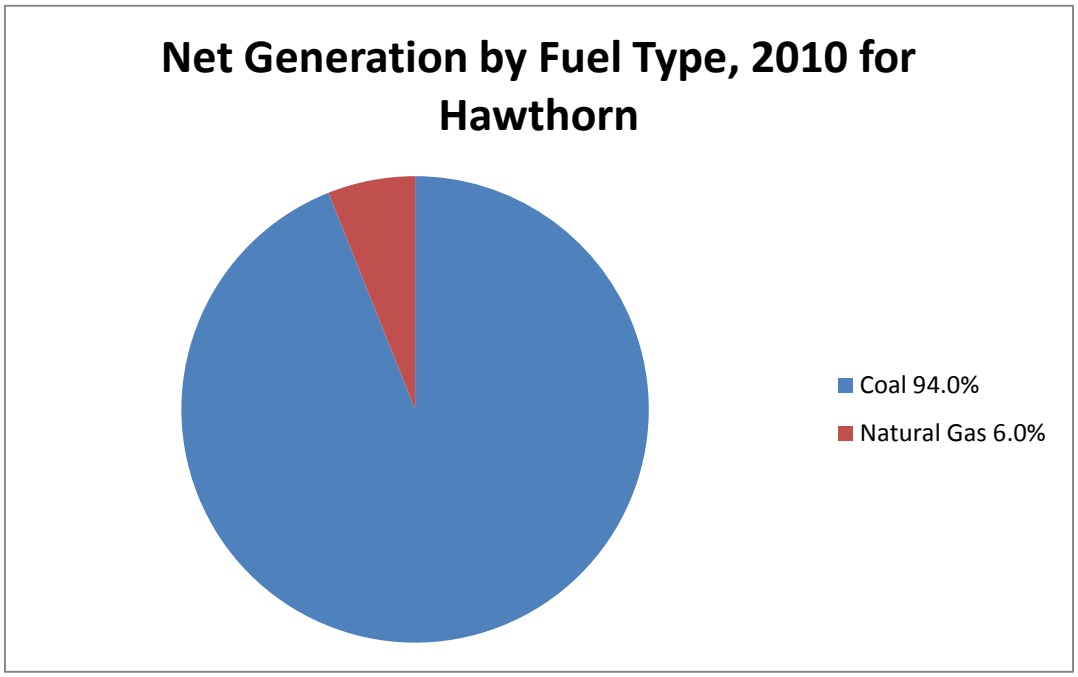
Missouri Department of Natural Resources

Kansas City Power & Light Company
Power Plant Name: Hawthorn
Electric Generation and Emissions in 2010

Generation Tables

	Fuel Consumption, MMBTUs	Percent of Total		Net Electric Power Generated, MWh	Percent of Total	
Non-renewable sources						
Coal	38,476,617	94.4%	94.4%	3,828,917	94.0%	94.0%
Natural Gas	2,270,380	5.6%	5.6%	246,279	6.0%	6.0%
Petroleum						
Nuclear						
Other						
Non-renewable total	**40,746,997**	**100.0%**	**100.0%**	**4,075,196**	**100.0%**	**100.0%**
Renewable sources						
Biomass						
Hydroelectric						
Landfill Gas						
Solar						
Waste Fuels						
Wind						
Wood						
Renewable total						
Grand total	**40,746,997**		**100.0%**	**4,075,196**		**100.0%**

Fuel Type	Physical Units	Number of Units
Sub-bituminous Coal	Short Tons	2,288,685
Natural Gas	MCf	2,270,380


Net Generation by Fuel Type, 2010 for Hawthorn
Coal 94.0%
Natural Gas 6.0%

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Power Plant Nameplate information for Hawthorn

Plant Name	County Location	Generator	Generator Type	Generator Status	Nameplate Capacity (MW)
Hawthorn		*All Operating Generators*			*4,284.4*
Hawthorn	Jackson	9	Combined Cycle Steam Part	Operating - in service	571.2
Hawthorn	Jackson	6	Combined Cycle Combustion Turbine Part (type of coal or solid must be reported as energy source for integrated coal gasification).	Operating - in service	656.0
Hawthorn	Jackson	7	Combustion (Gas) Turbine (includes jet engine design)	Operating - in service	340.0
Hawthorn	Jackson	8	Combustion (Gas) Turbine (includes jet engine design)	Operating - in service	340.0
Hawthorn	Jackson	5	Steam Turbine, including nuclear, geothermal and solar steam (does not include combined cycle)	Operating - in service	2,377.2

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Emissions from Electricity Generated in 2010: Hawthorn

	CO2 Equivalent (TONS)	Carbon Dioxide (CO2) (TONS)	Methane (CH4) (TONS)	Nitrogen Dioxide (NO2) (TONS)
Hawthorn	140,848,486	16,990,464	1,876,190	272,445

	Sulfur Dioxide (SO2) (TONS)	Annual Nitrogen Oxide (NOx) (TONS)	Summer Nitrogen Oxide (NOx) (TONS)
Hawthorn	28,566	0.0009	0.0009

Identified Flue Gas Desulfurization (FGD) controls installed on Hawthorn power plant

Plant	Control Equipment	Sorbent Type
Hawthorn	Spray dryer type	Lime and alkaline fly ash

Identified Flue Gas Particulate (FGP) controls installed on Hawthorn power plant

Plant	Control Equipment
Hawthorn	Baghouse, pulse

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Notes:
Generation, emissions and pollution control data include power plants owned by the utility and located in Missouri.

Emissions data calculated by Missouri Department of Natural Resources, Division of Energy, from EIA Fuel Consumption Data

Fuel Consumption and Generation Data from United States Energy Information Administration, Form 923, United States Department of Energy
http://www.eia.gov/electricity/data/eia923

Pollution control data (FGD and FGP equipment) from United States Energy Information Administration, Form 860, United States Department of Energy
http://www.eia.gov/electricity/data/eia860/index.html

Emissions factors for fuel-based generation from United States Environmental Protection Agency "Emission Factors for Greenhouse Gas Inventories", November 7, 2011,
http://www.epa.gov/climateleadership/documents/emission-factors.pdf